Patients who are ineligible for clinical trials have lower treatment response in daily practice than those who fulfil standard inclusion criteria

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Objective. To compare the effectiveness of anti-TNF therapy in routine rheumatologic practice with efficacy results found in the randomized controlled clinical trials (RCTs) leading to approval.

Methods. RA patients starting anti-TNF therapy were enrolled into the German biologics register RABBIT between 2001 and December 2004. Baseline characteristics of patients beginning treatment with etanercept, infliximab, or adalimumab were used to stratify these patients according the fulfilment of the inclusion criteria for the corresponding trial. We investigated treatment effectiveness (ACR20/50 responses) after 6 months of treatment.

Results. Table 1 shows characteristics and outcomes of patients according to their eligibility for the major trials.

	Eligible for the resp. trial	Moreland trial (Intern Med 1999:478-86)	ATTRACT trial (Maini, Lancet 1999:1932-39)	ARMADA trial (Weinblatt, Arthritis Rheum 2003:35-45)
n of cases	yes	149 (23.0%)	101 (27.2%)	119 (27.1%)
	no	498	271	320
baseline DAS28*(mean)	yes	6.4	6.6	6.1
	no	5.8	5.8	5.7
Function** (0-100), mean	yes	62.0	57.8	64.2
	no	53.2	52.7	52.3
n of previous DMARDs	yes	2.9	3.6	3.0
	no	4.0	3.8	4.2
ACR20 after 6 months (%)	yes	64.9	52.2	59.6
	no	56.0	44.3	46.6
ACR50 after 6 months (%)	yes	36.6	26.7	38.5
	no	24.6	22.8	19.5

* Disease activity score 28 joints; ** Funktionsfragebogen Hannover, increasing values indicate better function

Less than one third of the patients fulfilled the inclusion criteria of the respective trials. Eligible patients had more active disease, a significantly better functional status and less previous DMARD failures than non-eligible pts.

Non-eligible patients had lower baseline disease activity, more previous DMARD failures, poorer functional status and more severe co-morbidity and therefore a lower a-priori chance of relative improvement: ACR20 and ACR50 response rates after 6 months were lower (see table). However, in spite of the differences at baseline, the absolute clinical response reached at 6 months was similar in eligible (mean DAS28: 4.1, SJC: 4.2) and non-eligible patients (DAS28: 4.2, SJC: 4.2).

Conclusion. We found treatment responses similar to the major trials for eligible and lower responses for non-eligible patients. These severely ill patients play an important part in real practice. Even if the relative benefit may be lower than in patients eligible for trials they show considerable improvement and should be offered adequate treatment.

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